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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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3002

5205

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06/08/2010

EXAMINER

AHMED, HASAN SYED

ART UNIT

PAPER NUMBER

1615

MAIL DATE

DELIVERY MODE

06/08/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/501,163	Applicant(s) KELLER ET AL.	
	Examiner HASAN S. AHMED	Art Unit 1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4 and 12-19 is/are pending in the application.
- 4a) Of the above claim(s) 14-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 4, 12, 13, 18, and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of applicants' amendment and remarks, filed on 1 February 2010.

* * * * *

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 18 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. As amended, the instant claim set recites the limitation "natural zein extract". After carefully examining the instant disclosure, the examiner respectfully submits that support for this amendment is lacking and the addition of said limitation is new matter.

Applicants point to the third full-paragraph of page 2 of the specification for support for this amendment. That portion of the specification states, "For purposes of the invention, by natural zein is meant an unhydrolyzed protein obtained from corn..., for example, by known extraction methods or commercially...". This passage refers to a method of obtaining natural zein; it does not disclose, explicitly or implicitly, a natural zein extract. The phrase "natural zein extract" suggests a purified sample of natural

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zein. The passage quoted above merely states that any extraction method can be used to obtain natural zein from corn. The passage does not state that purified natural zein is an ingredient of the composition, as is now being claimed by amended claim 18.

* * * * *

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 12, 13, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 2,383,990 ("Quisling") (cited in the IDS filed on 12 July 2004) in view of U.S. Patent No. 5,972,322 ("Rath").

Independent claim 18 recites a method for improving the condition of hair with natural zein, comprising the steps of providing a cosmetic hair-treatment agent comprising from 0.01 to 10.0 percent by weight of said natural zein as an unhydrolyzed protein obtained from corn; bringing the hair in contact with said cosmetic hair-treatment agent for a time sufficient for hardening, strengthening, restructuring, repairing or stabilizing or for increasing luster, volume, or combability of hair; and rinsing or washing said agent out with water or an aqueous agent.

Quisling teaches a cosmetic treatment for, *inter alia*, hair, comprising proteins (see page 1, left col., lines 1-6). The proteins may include unhydrolyzed zein (see page 1, left col., line 11; page 1, right col., line 31; examples 4 and 10) (reading on claim 18).

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The treatment may be used to provide a surface coating for hair suitable for serving as an improved setting, waving, and/or curling agent (see page 1, right col., lines 4-12) (reading on at least the “restructuring” limitation of claim 18). Quisling explains that the disclosed treatment is beneficial in that it has a pleasant odor and is less injurious to hair than previous formulations (see page 1, right col., line 9). The treatment may take the form of a solution (see page 3, right col., line 33) (reading on claim 12). The treatment is applied by bringing the composition in contact with hair (see page 3, right col., lines 18-38) (reading on claim 18). A person of ordinary skill in the art would understand that the treatment is applied at room temperature in view of the disclosure at page 3, right col., lines 18-38, reading on claim 13.

Regarding the time range of claim 19, “‘Products of identical chemical composition can not have mutually exclusive properties.’ A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).” See MPEP 2112.01. Since the composition disclosed by Quisling is comprised of unhydrolyzed zein, the properties of the Quisling composition vis-à-vis hair interaction will be the same as the properties of the composition being claimed.

Quisling differs from the instant application in that it teaches a zein concentration of 20% (see examples 4 and 10), while instant claim 18 recites a zein concentration of up to 10%. A prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would

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have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.05. Applicants disclose a zein concentration of up to 20% (see specification, page 3, 9th paragraph); as such, one skilled in the art would have expected the same properties for a composition comprising 10% or 20%.

Quisling differs from the instant application in that it does not teach rinsing or washing the agent out with water or an aqueous agent.

Rath teaches a shampoo, conditioner, or styling system that includes, *inter alia*, a strengthening agent to penetrate the hair to help condition, strengthen, and retain moisture in fine, limp, and protein deficient hair (see col. 10, lines 55-59). The disclosed composition may be used to treat chemically processed hair (see col. 10, line 60) (reading on claim 4). The disclosed composition comprises, *inter alia*, plant-derived proteins (see col. 10, line 62) such as corn gluten (equivalent to zein) (see col. 11, line 9). The protein concentration may be as low as 20% (see col. 10, line 67). According to the instant specification, corn gluten contains 60 to 70% zein (see page 3, paragraph 7); as such, the zein concentration disclosed by Rath is as low as 12%. The shampoo formulation is massaged into the hair and rinsed from the hair using water, then the conditioner is applied and massaged into the wet hair and rinsed out after 1-2 minutes (see col. 13, line 67 - col. 14, line 3) (reading on claims 18 and 19).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose a method for improving the condition of hair with natural zein comprising providing a cosmetic hair-treatment agent comprising from 0.01 to 10%

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by weight of natural zein, bringing the hair in contact with the agent, and washing the agent out with water or an aqueous agent, as taught by Quisling in view of Rath. One of ordinary skill in the art at the time the invention was made would have been motivated to make such a composition because it has a pleasant odor and is less injurious to hair than previous formulations, as explained by Quisling (see above).

* * * * *

Response to Arguments

Applicants' arguments filed 1 February 2010 have been fully considered but they are not persuasive.

Applicants argue that a person of ordinary skill in the art would not equate improved setting, waving, and/or curling of hair with "restructuring." See remarks, page 5.

Examiner respectfully submits that the term "restructuring" is not given a special definition in the specification; as such, given both the prior art and the claims in their present form their broadest reasonable interpretation, a person of ordinary skill in the art would find the claimed invention obvious in view of the prior art. See MPEP § 2111 and 2123.

Applicants argue that the prior art does not disclose natural zein extract. See remarks, page 6.

Examiner respectfully submits that the limitation "extract" is deemed to be new matter. See 35 USC 112 rejection, above.

Applicants argue that Quisling teaches a coating rather than penetrating composition. See remarks, page 6.

Examiner respectfully submits that the claims as currently constructed do not preclude a coating composition and do not claim a penetrating composition. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicants argue that it would not have been obvious to a person of ordinary skill in the art that a composition containing 10% zein would have been sufficient to hold hair as well as a composition containing 20% zein. See remarks, page 6.

Examiner respectfully submits that applicants have not shown any criticality or unexpected results with a zein concentration as high as 10%. Rather, applicants seem to be suggesting that it is advantageous to use a composition comprising 20% zein.

Applicants argue, “[t]here is...no teaching in Quisling that zein strengthens hair and there is not teaching in Rath that the zein component of corn gluten is responsible for strengthening properties of the Rath composition. See remarks, page 7.

“‘Products of identical chemical composition can not have mutually exclusive properties.’ A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).” See MPEP 2112.01.

Applicants argue that Quisling and Rath cannot be combined because "the form in which zein is applied according to Quisling is incompatible with the form in which corn gluten, which is not equivalent to zein, is applied according to Rath." See remarks, page 7.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, Rath suggests that a cosmetic composition applied to hair and containing zein, as taught by both Quisling and Rath, can be rinsed or washed out; i.e., that zein is water soluble.

Applicants argue that "it does not seem reasonable that one reading Quisling and Rath would be motivated to make Rath's shampoo less injurious. See remarks, page 8.

As indicated above, examiner respectfully submits that Rath was invoked for the teaching that a cosmetic composition applied to hair and containing zein, as taught by both Quisling and Rath, can be rinsed or washed out; i.e., that zein is water soluble.

* * * * *

Conclusion

Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HASAN S. AHMED whose telephone number is (571)272-4792. The examiner can normally be reached on 9am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Wax can be reached on (571)272-0623. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. S. A./
Examiner, Art Unit 1615

/Humera N. Sheikh/
Primary Examiner, Art Unit 1615